

## COMMENTS ON DOCKET 04-37

APR 06 2004

I am very disappointed that the Commission has elected to go forward with this BPL method of providing broadband access over power lines. It is a horribly poor concept and it does not appear that the Commission fully appreciates the byproduct of this scheme.

I was extremely sad to see that the Commission adopted the assertion of the attorney for the Southern Company that power lines act as balanced transmission lines at 2 to 80 MHz. For this to be a truthful statement, the laws of physics would have to be canceled. The power lines in my neighborhood are spaced approximately 8 feet apart. At this spacing, the lines work as balanced transmission lines at VLF frequencies (~150 KHz). At 2 to 80 MHz., the lines must be spaced closer than 8 INCHES to act as balanced feed lines, and more narrow as the frequency increases. In fact, at 8 feet spacing, the power lines may exhibit gain at these frequencies. So, there cannot be any honest disagreement that BPL signals will radiate some distance from the power lines. In fact, it might be possible that these signals will travel large distances if the ionosphere propagates them.

The Commission should anticipate a large number of service complaints from BPL subscribers. To eliminate some of these, the power companies should be required to fully inform potential consumers that as a part 15 service, service might be disrupted by licensed services. Consulting my NTIA frequency allocation chart, this includes fixed, amateur, land mobile, mobile, television broadcasting, aeronautical mobile, marine mobile, radio astronomy, space research, standard frequency and time services. Potential customers should also be notified that interference to BPL might be caused by strong solar eruptions. The Commission should author a uniform written notification and the BPL providers should be required to maintain these signed customer notifications.

The Commission should review records of the Enforcement Bureau (Reilly Hollingsworth) where dozens of enforcement notices have been sent to power companies when they refused to voluntarily fix faulty equipment and caused RF interference. I do not expect power companies to effectively respond to BPL complaints from lawful licensees. Therefore, the Commission should impose substantial daily fines should they not follow its rules. I would anticipate that the personnel of the Enforcement Bureau would have to be increased dramatically.

There is one substantial matter that has not been addressed. Since the BPL signals radiate some distance from the power lines, unlawful interception of the BPL signals can occur at any point in "the last mile" from the electrical substation. This could be a much more serious problem than we now have with 802.11 wireless networks where the signal can only be intercepted locally. There will not be any method to detect such interception because the signal is passively collected via radio waves. I am a retired FBI Special Agent who was a certified technically trained agent. I now own a company that performs technical surveys countermeasures. I will certainly advise my corporate clients not to allow employees to use BPL to access its server. Certainly, no government agency should ever use BPL.

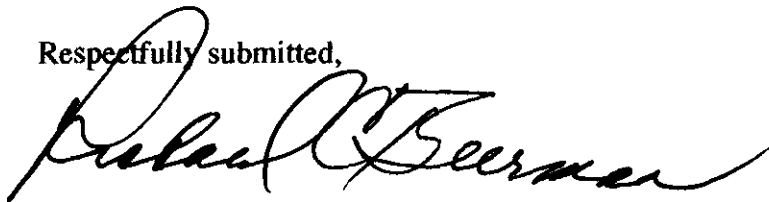
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I was extremely disappointed that someone at the Commission thinks that amateur licensees can null the BPL interference by turning their directional antennas. This illustrates a lack of understanding of how radio stations operate. First, very few amateurs have directional antennas below 14 MHz because of their large size. Secondly, even if a directional antenna is used, it is of no consequence where the power lines are between the antenna and the rest of the Country (as here in South Texas). Finally, because the Commission has failed to take on the issue of restrictive covenants related to antennas, many licensees cannot install a directional antenna at all.

In the course of conducting my business, I have spoken with many customers about their Internet service. There is no clamor for BPL access. Anyone in the continental USA can purchase broadband satellite Internet access today. I expect that wireless microwave Internet access will be available in the near future and this is a mode that will not cause interference to licensees and tens of thousands of short wave listeners. It is well understood that the BPL concept has been pushed by substantial lobbying efforts. Unfortunately, much of the information provided by the lobbyists to the Commission has been incorrect, at best and outright misrepresentations at worst. The part that troubles me is that it does not appear that the Commission has investigated BPL objectively and that the Commission's technical staff has not fully educated the Commissioners on this subject. Before the Commission unleashes BPL on the public please be objective, fair and well informed. Please keep in mind that there is no known method to filter or otherwise eliminate BPL broadband interference to licensees and if the power companies allege the contrary, make them prove it. Please keep in mind that BPL may cause harmful interference to rural over the air VHF television viewers.

Finally, I have heard the argument that competition by Internet service providers will be good for rural customers. If it is already not financially feasible for cable operators and DSL providers to service these areas, if we have BPL there will still be no competition there.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Richard C. Beerman". The signature is fluid and cursive, with a large initial "R" and "B".

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